

10/520,243>27/04/2007

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(FILE 'HOME' ENTERED AT 11:05:06 ON 27 APR 2007)

FILE 'HCAPLUS' ENTERED AT 11:05:17 ON 27 APR 2007

E TAURINE+ALL/CT

L1 1882852 S (TAURINE OR "CHEMICAL COMPOUNDS" OR "ORGANIC COMPOUNDS" OR "A

L2 3327 S PERITONEAL DIALYS?

L3 214 S L1 AND L2

E LACTATE+ALL/CT

L4 3394327 S (LACTATE OR "CHEMICAL COMPOUNDS" OR "ORGANIC COMPOUNDS" OR "H

L5 210 S L4 AND L3

E MAGNESIUM+ALL/CT

FILE 'HCAPLUS' ENTERED AT 11:07:53 ON 27 APR 2007

L6 484927 S MAGNESIUM

L7 28 S L6 AND L5

E "107-35-7"/BI,RN 25

L8 13750 S E3 OR E5 OR E6 OR E7

L9 9 S L3 AND L8

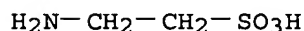
L10 8 S L9 AND L5

FILE 'STNGUIDE' ENTERED AT 11:09:45 ON 27 APR 2007

L10 ANSWER 1 OF 8 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:20480 HCAPLUS  
 DOCUMENT NUMBER: 140:65168  
 TITLE: Peritoneal dialysate containing taurine  
 INVENTOR(S): Sanaka, Tsutomu; Wakabayashi, Maki; Sano, Yukihiro  
 PATENT ASSIGNEE(S): Shimizu Pharmaceutical Co.,ltd., Japan; Jms Co., Ltd.  
 SOURCE: PCT Int. Appl., 24 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004002467	A1	20040108	WO 2003-JP6453	20030523
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003238691	A1	20040119	AU 2003-238691	20030523
EP 1517681	A1	20050330	EP 2003-733039	20030523
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2005531630	T	20051020	JP 2004-517244	20030523
CN 1688300	A	20051026	CN 2003-815601	20030523
US 2006079464	A1	20060413	US 2005-520243	20050502
PRIORITY APPLN. INFO.:			JP 2002-192177	A 20020701
			WO 2003-JP6453	W 20030523
AB A neutral peritoneal dialyzate containing taurine as an alternative to glucose to serve as an osmotic agent exhibits an improved stability. Specifically, the peritoneal dialyzate contains an electrolyte and an alkalizer along with a taurine compound. The taurine compound is preferably contained in an amount of 0.01 to 5 w/v%. The peritoneal dialyzate of the present invention exhibits a good biocompatibility, permits effective control of blood glucose level in patients of diabetes, and does not cause the deterioration of the peritoneum. Furthermore, the peritoneal dialyzate of the present invention can be provided in the form of a single stable solution and thus can be provided in one-compartment containers.				
IT 107-35-7, Taurine RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (peritoneal dialyzate containing taurine)				
RN 107-35-7 HCAPLUS CN Ethanesulfonic acid, 2-amino- (CA INDEX NAME)				



REFERENCE COUNT: 5  
 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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L10 ANSWER 2 OF 8 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:49399 HCAPLUS

DOCUMENT NUMBER: 138:95679

TITLE: Peritoneal dialysis fluids  
containing carbonyl scavengers, their manufacture,  
containers packed with the fluids, and the fluid  
injection apparatus

INVENTOR(S): Yamamoto, Keishi; Tanaka, Keizo; Hirai, Mami

PATENT ASSIGNEE(S): JMS Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003019198	A	20030121	JP 2001-205690	20010706
PRIORITY APPLN. INFO.:			JP 2001-205690	20010706

AB The fluids using glucose (I) as an osmotic agent contain carbonyl scavengers which react with active group of glucose degradation products such as 3-deoxyglucosone to decrease the reactivity of the products, thus preventing deterioration of peritoneum due to cytotoxicity of the products. The carbonyl scavengers may be  $\alpha$ -amino acids, dipeptides, amino acids which are not constituents of proteins, nucleobases and nucleosides having amino group, etc. The container is sep. packed with at least a I-containing liquid and a non-I-containing liquid containing the carbonyl scavengers. The apparatus, which is connected to the container or capable of connecting with the container, has an adsorbent unit at the liquid outlet of the container or at any part of the injection part to remove complexes of the carbonyl scavengers with the glucose degradation products. The carbonyl scavengers are added to the dialysis fluids just before administration to patients.

IT 107-35-7, Taurine

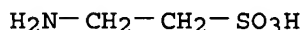
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(carbonyl scavenger; peritoneal dialysis fluids

containing carbonyl scavengers to remove glucose degradation products and  
injection apparatus having adsorbents for reaction products)

RN 107-35-7 HCAPLUS

CN Ethanesulfonic acid, 2-amino- (CA INDEX NAME)



L10 ANSWER 3 OF 8 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:512841 HCAPLUS

DOCUMENT NUMBER: 137:168803

TITLE: Influence of nutritional status on plasma and  
erythrocyte sulphur amino acids,  
sulf-hydryls, and inorganic sulphate in end-stage  
renal diseaseAUTHOR(S): Suliman, Mohamed E.; Barany, Peter; Divino Filho, Jose  
C.; Qureshi, A. Rashid; Stenvinkel, Peter;  
Heimbuerger, Olof; Anderstam, Bjoern; Lindholm, Bengt;  
Bergstroem, JonasCORPORATE SOURCE: Divisions of Baxter Novum and Renal Medicine,  
Department of Clinical Science, Karolinska Institutet,  
Huddinge University Hospital, Stockholm, Swed.SOURCE: Nephrology, Dialysis, Transplantation (2002), 17(6),  
1050-1056

CODEN: NDTREA; ISSN: 0931-0509

PUBLISHER: Oxford University Press

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Background. The metabolism of sulfur amino acids and sulfhydryls is altered in end-stage renal disease (ESRD). Previous studies have focused on the role of vitamin status in the development of hyperhomocysteinemia in such patients, but little information exists about the influence of global nutritional status and hypoalbuminemia on sulfur-containing compounds in ESRD. As considerable fractions of sulphhydryls in blood are present in erythrocytes (RBC), which among others participate in intra-organ amino acid transport, the relationship between plasma and RBC levels of several of these compounds and various nutritional parameters were evaluated in the present study. Methods. Thirty-seven ESRD patients (24 males, 13 females) on dialysis treatment (18 hemodialysis, 19 continuous ambulatory peritoneal dialysis) and 21 healthy subjects (seven males, 14 females) were examined. The subjective global nutritional assessment (SGNA) showed that 10 (27%) patients were malnourished and 27 (73%) had normal nutritional status. Results. All the ESRD patients had high plasma total homocysteine (tHcy) levels. The plasma concentrations of methionine (Met) and taurine (Tau) were low, but the levels of the other sulfur-containing compounds were high. In the RBC, the patients had higher levels of tHcy and Tau than in healthy subjects, but no difference was seen in the concentrations of glutathione (GSH), cysteinylglycine (Cys-Gly), Met, and Cys. The plasma inorganic sulfate concentrations were 5 times higher in the patients than in healthy subjects, but the levels did not differ significantly between the malnourished patients and those with normal nutritional status. The malnourished patients had lower plasma, but not RBC, levels of tHcy, GSH, and Cys-Gly than those with normal SGNA. Plasma tHcy correlated positively with serum (s)-albumin and anthropometric parameters and negatively with SGNA. RBC and whole blood, but not plasma, GSH concentrations were correlated with hematocrit and were significantly lower in low hematocrit patients ( $\leq 37\%$ ,  $n=19$ ) than in those with a high hematocrit ( $> 37\%$ ,  $n=18$ ). Conclusions. These results show that nutritional status and s-albumin influence plasma, but not RBC, concentrations of sulfhydryls in ESRD patients. This should be considered when the relationships between cardiovascular disease and plasma tHcy or other sulfur-containing compounds are assessed. The study also shows that GSH concentrations in RBC and whole blood are related to hematocrit and not to nutritional parameters, indicating that anemia status rather than nutritional status determines RBC and whole blood GSH levels in ESRD patients.

IT 107-35-7, Taurine

RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(influence of nutritional status on plasma and erythrocyte sulfur amino acids, sulfhydryls, and inorganic sulfate in end-stage renal disease)

RN 107-35-7 HCAPLUS

CN Ethanesulfonic acid, 2-amino- (CA INDEX NAME)

 $\text{H}_2\text{N}-\text{CH}_2-\text{CH}_2-\text{SO}_3\text{H}$ 

REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 4 OF 8 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:172665 HCAPLUS

DOCUMENT NUMBER: 136:318800

TITLE: One-compartment model for amino acids and other biological molecules in peritoneal dialysis

AUTHOR(S): De la Motte, S.; Plum, J.; Passlick-Deetjen, J.; Grabensee, B.  
 CORPORATE SOURCE: Harrison Clinical Research, Munich, Germany  
 SOURCE: International Journal of Clinical Pharmacology and Therapeutics (2002), 40(2), 60-68  
 CODEN: ICTHEK; ISSN: 0946-1965  
 PUBLISHER: Dustri-Verlag Dr. Karl Feistle  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB Investigation of the main factors determining the concentration-time course of amino acids and biol. mols. in serum and dialyzates. In a randomized, 3-period cross-over study, 11 patients were treated once with each of 3 peritoneal dialysis solns., 1 containing amino acids and bicarbonate, 1 containing glucose and bicarbonate and 1 containing glucose and lactate. Nineteen amino acids, 3 proteins, 2 metabolites and 2 ions were measured in serum and dialyrate. A standard compartment model was fitted to the data. The amino acids differed significantly in their kinetic characteristics ( $p < 0.001$ ), mainly volume of distribution and elimination rate. Differences in absorption were small compared to the interpatient variation. The average transport rate from serum to dialyrate was 0.50-1.14 h<sup>-1</sup>, from dialyrate to serum 0.33-0.41 h<sup>-1</sup>, for elimination from the central compartment 0.35 to 2.27 h<sup>-1</sup>, for volume of distribution 0.29 to 0.83 l/kg, for serum protein binding 19-47%, for amount in tissue 82-95%, for endogenous metabolic rate 16-151  $\mu\text{mol} \cdot \text{kg}^{-1} \cdot \text{h}^{-1}$ . The volume of distribution correlated with the R group (polar pos. < aliphatic < polar uncharged). For the various proteins, the 2 bicarbonate solns. had higher serum-to-dialyrate transport rates than the lactate solution ( $p = 0.018-0.601$ ). The compartment model demonstrated its usefulness. Accordance with literature data for healthy volunteers indicated the validity of the ests.

IT 107-35-7, Taurine  
 RL: BSU (Biological study, unclassified); PKT (Pharmacokinetics); BIOL (Biological study)  
 (one-compartment model for amino acids and other biol. mols. in peritoneal dialysis)

RN 107-35-7 HCAPLUS  
 CN Ethanesulfonic acid, 2-amino- (CA INDEX NAME)

H<sub>2</sub>N-CH<sub>2</sub>-CH<sub>2</sub>-SO<sub>3</sub>H

REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 5 OF 8 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2001:31347 HCAPLUS

DOCUMENT NUMBER: 134:91159

TITLE: Peritoneal dialysis solution containing antioxidant for treating renal failure

INVENTOR(S): Lee, Hibahl; Ha, Hunjoo; Kim, Sungil

PATENT ASSIGNEE(S): S. Korea

SOURCE: PCT Int. Appl., 16 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2001002004	A1	20010111	WO 2000-KR654	20000621
W: CN, IN, JP, US				

RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,  
PT, SE

PRIORITY APPLN. INFO.:

KR 1999-26583

A 19990702

AB The present invention relates to peritoneal dialysis solns. containing antioxidant(s) for patients with end-stage renal failure undergoing peritoneal dialysis. More specifically, the present invention relates to peritoneal dialysis solns. containing electrolyte (Na<sup>+</sup>, Mg<sup>2+</sup>, Ca<sup>2+</sup> and Cl<sup>-</sup>), buffer (lactate and/or bicarbonate), osmotic agent(s) (glucose, polyglucose, amino acid, glycerol, polypeptide, or combinations thereof) and antioxidant(s) (catalase, taurine, ascorbic acid,  $\alpha$ -tocopherol, N-acetylcysteine, glutathione,  $\alpha$ -lipoic acid, superoxide dismutase, or combinations thereof) that inhibits reactive oxygen species. By inhibiting reactive oxygen species that may be generated by the stimulation of high concentration of glucose contained in peritoneal dialysis solns., the peritoneal dialysis solution of the present invention, unlike the currently used peritoneal dialysis solns., can prevent oxidative stress and subsequent peritoneal injury.

IT 107-35-7, Taurine  
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(peritoneal dialysis solution containing antioxidant for treating renal failure)

RN 107-35-7 HCAPLUS

CN Ethanesulfonic acid, 2-amino- (CA INDEX. NAME)

H<sub>2</sub>N-CH<sub>2</sub>-CH<sub>2</sub>-SO<sub>3</sub>H

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 6 OF 8 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1997:237657 HCAPLUS

DOCUMENT NUMBER: 126:259140

TITLE: In vitro biocompatibility evaluation of a novel bicarbonate-buffered amino acid solution for peritoneal dialysis

AUTHOR(S): Joerres, A.; Gahl, G. M.; Ludat, K.; Frei, U.; Passlick-Deetjen, J.

CORPORATE SOURCE: Abteilung fur Innere Medizin mit Schwerpunkt Nephrologie und Internistische Intensivmedizin, Virchow-Klinikum der Humboldt-Universitat zu Berlin, Berlin, D-13353, Germany

SOURCE: Nephrology, Dialysis, Transplantation (1997), 12(3), 543-549

CODEN: NDTREA; ISSN: 0931-0509

PUBLISHER: Oxford University Press

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Conventional lactate-buffered peritoneal dialysis fluids containing glucose as the osmotic agent have been shown to compromise important peritoneal host defense functions. The current study employed an in vitro model using activated peripheral blood mononuclear leukocytes (PBMC) for the preclin. biocompatibility assessment of a novel bicarbonate-buffered peritoneal dialysis fluid containing 1.0% amino acids as the osmotic agent. PBMC (5 + 106/mL) were pre-exposed (10-30 mm, 37°) to bicarbonate-buffered 1% amino acid solution, bicarbonate- or lactate-buffered 1.5% glucose solution, or control medium (RPMI). The cells were then washed and stimulated for 2 h at 37° in RPMI containing Escherichia coli endotoxin. The cytokines interleukin 6 and tumor

necrosis factor- $\alpha$  in cell supernatants were assessed by specific enzyme immunoassays and determination of cytokine mRNA expression by the reverse transcription-polymerase chain reaction. Short, i.e., 10-min, exposure to conventional, lactate-buffered glucose fluid resulted in a significant and time-dependent inhibition of cytokine release and mRNA expression by activated PBMC, whereas the cytokine response was improved following even prolonged ( $\leq 2$ -h) exposure to bicarbonate-buffered 1% amino acid solution or bicarbonate-buffered 1.5% glucose solution. The results suggest that very short, i.e., potentially clin. relevant, exposure to conventional dialysis fluid impairs the cytokine response by activated leukocytes. In this respect, the use of bicarbonate-buffered solns. containing 1.0% amino acids or 1.5% glucose may result in improved biocompatibility properties.

IT 107-35-7, Taurine  
 RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); MOA (Modifier or additive use); BIOL (Biological study); USES (Uses) (biocompatibility of bicarbonate-buffered peritoneal dialysis solns. containing)  
 RN 107-35-7 HCAPLUS  
 CN Ethanesulfonic acid, 2-amino- (CA INDEX NAME)

$\text{H}_2\text{N}-\text{CH}_2-\text{CH}_2-\text{SO}_3\text{H}$

L10 ANSWER 7 OF 8 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1993:406452 HCAPLUS  
 DOCUMENT NUMBER: 119:6452  
 TITLE: Application of high performance liquid chromatography in study of sulfur amino acid metabolism in uremic patients  
 AUTHOR(S): Qureshi, G. Ali; Baig, Shahid M.  
 CORPORATE SOURCE: Karolinska Inst., Huddinge Univ. Hosp., Stockholm, S-14186, Swed.  
 SOURCE: Biochemistry and Molecular Biology International (1993), 29(2), 359-68  
 CODEN: BMBIES; ISSN: 1039-9712  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB High-performance liquid chromatog. (HPLC) was used for the quantitation of the free amino acids in plasma and muscle samples from 34 patients with chronic renal failure; of these patients, 18 were treated by hemodialysis (HD) and 16 by continuous ambulatory peritoneal dialysis (CAPD). Depletion of taurine was observed in plasma and muscle of uremic patients, whereas methionine was normal. Cysteine sulfinic acid was present in plasma of all uremic patients. The results suggest that taurine depletion is due to decreased endogenous synthesis in uremic patients.

IT 107-35-7  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study) (depletion of, in kidney failure of humans)  
 RN 107-35-7 HCAPLUS  
 CN Ethanesulfonic acid, 2-amino- (CA INDEX NAME)

$\text{H}_2\text{N}-\text{CH}_2-\text{CH}_2-\text{SO}_3\text{H}$

L10 ANSWER 8 OF 8 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1990:520870 HCAPLUS  
 DOCUMENT NUMBER: 113:120870  
 TITLE: Peritoneal dialysis solutions  
 containing amino acids  
 INVENTOR(S): Bartz, Volker; Steudle, Volker  
 PATENT ASSIGNEE(S): Fresenius A.-G., Fed. Rep. Ger.  
 SOURCE: Ger. Offen., 7 pp.  
 CODEN: GWXXBX  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3821043	A1	19891228	DE 1988-3821043	19880622
DE 3821043	C2	19911212		
EP 347714	A2	19891227	EP 1989-110650	19890613
EP 347714	A3	19901227		
R: AT, BE, CH, DE, ES, FR, GB, IT, LI, NL, SE				
AU 8936636	A	19900104	AU 1989-36636	19890620
AU 615553	B2	19911003		
JP 02053723	A	19900222	JP 1989-159377	19890621
PRIORITY APPLN. INFO.:			DE 1988-3821043	A 19880622

AB Dialysis and rinsing solns. for i.p. administration comprise amino acids as osmotically active substances, in addition to the usual electrolytes. Organic acids and their salts may also be present. A solution contained amino acid mixture 10, L-malic acid 6.53, NaCl 5.785, CaCl<sub>2</sub>·2H<sub>2</sub>O 0.2573, MgCl<sub>2</sub>·6H<sub>2</sub>O 0.1017, 50% Na lactate 10.76, glucose 10.0 g/L, pyridoxine-HCl 40.0, riboflavin 5-phosphate 2.5, nicotinamide 60 and thiamin 10 mg/L. The amino acid solution comprised L-histidine 4.9, L-isoleucine 6.0, L-leucine 9.0, L-methionine 9.0, L-valine 13.5, L-lysine-HCl 6.5, L-phenylalanine 6.0, L-threonine 6.5, L-tyrosine 7.5, L-aurine 4.9, and L-tryptophan 2.5 g/L. The amino acid solution was diluted to 10 g amino acids/L. The above i.p. dialysis solns. are free of the side effects shown when glucose is used as the osmotically active substance.

IT 107-35-7  
 RL: BIOL (Biological study)  
 (peritoneal dialysis solution containing)

RN 107-35-7 HCAPLUS  
 CN Ethanesulfonic acid, 2-amino- (CA INDEX NAME)

